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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/738,337	12/17/2003	Kenro Ohsawa	OOCL-32/CON (2TS-00S0337-	9711
26479	7590	05/06/2005	EXAMINER	
STRAUB & POKOTYLO 620 TINTON AVENUE BLDG. B, 2ND FLOOR TINTON FALLS, NJ 07724			AMINI, JAVID A	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/738,337

Applicant(s)

OHSAWA, KENRO

Examiner

Javid A Amini

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/28/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/28/05;12/17/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term Applicant uses in the independent claims, for example: In claim 1 line 4 discloses “a color image of one frame”. Applicant does not specify the meaning of “one frame” in the specification. Applicant discloses in the specification at page 9, lines 19-24, page 30 line 12, page 48 line 25 and page 49, line 23 the color images are synthetically displayed on the screen 34 as a large color image of one frame.

Questions: Is the “one frame” equivalent to one frame buffer?

How does Applicant characterize “one frame”?

Examiner refers Applicant to see IDS dated 02/28/05, the prior art EP 0739133A1 in fig. 5 to verify the similarity between the term that Applicant uses “one frame” and the video signals (Va and Vb). Each of these signals occurs in one cycle (from t1 to t2) that is considered as one frame.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5-7, 9, 11 and 13 rejected under 35 U.S.C. 102(e) as being anticipated by
Kreitman et al. US Patent 5,956,000.

1. Claims 1, 7, 9, 11 and 13.

“A color image display system comprising: a plurality of partial color image display means for displaying partial color images to be synthetically displayed as a color image of one frame, on the basis of display color image data; and image data conversion means for converting input color image data into the display color image data on the basis of color reproduction characteristics of said plurality of partial color image display means”.

Kreitman illustrated in Fig. 3A a frame of plurality of projectors (partial color image). Also Kreitman illustrates in Fig. 6A, a generic receiver (#52), which receives the transmitted signal and converts it to an image frame. The step of “image data conversion means for converting input color image data into the display color image data on the basis of color reproduction characteristics of said plurality of partial color image display means” is inherent since projectors are combination of partial color images and displayed as a color image of one frame that resulted from image data conversion or correction. Also Kreitman discloses in (col. 2, lines 7-10) that, first measures the misalignments (where the conversion or correction input color required), in a

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calibration operation (where adding or mixing the intensity of the misalignment in order to determine the transformation corresponding to each projection unit), and then utilizes the misalignment measurements to determine the transformations for each section of the image. Kreitman in fig. 2 (#22) illustrates a frame buffer. Re. claim 7, that claims an image data conversion means for correcting a bias of input color image data. Applicant in the specification on pages 3-4 lines 23-27; 1-5 respectively, discloses the image data conversion comprises correction for correcting a bias of the input color image data so as to display the partial color images on a predetermined set bias in the plurality of partial color image display. When the correction for correcting the bias is provided, a case wherein the display color image data input to the partial color image display has a value smaller than the bias and cannot be reproduced is eliminated or reduced. Examiner interpretation: Applicant sets a threshold as different bias in claim 9, or as nonuniformities in claim 11, or as range of luminance in claim 13, for example: if the intensity is high means the area is non-overlap area, and if the intensity is low means the area is overlap area. See Kreitman in col. 5, lines 27-38 teaches each border alpha unit 56 changes the intensity of the portions of the transformed sections 30 (produced by the corresponding geometric transformer 54) in the associated area of overlap 32. Typically, border alpha units 56 reduce the intensity of the image to be projected towards the outer edges of the overlap area 32. FIG. 7, to which reference is now briefly made, illustrates the changing intensity in an example overlap area 32. Line 33 indicates the edge of the border, where the overlap area 32 is to its right and the non-overlap area, labeled 31, is to its left. Within the non-overlap area 31, the intensity remains at 100%. Within the overlap area 32, the intensity is gradually reduced to 0%. The advantages of Kreitman invention over applicant's invention are providing a system for

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projecting large format images at a relatively high resolution, and also does not require expensive projection units nor an expensive housing to hold the projection units in exact alignment nor an expensive mechanical calibration operation.

2. Claim 2.

Kreitman discloses in (col.2, lines 18-31) that the pattern generator (image data conversion) generates patterns on the projection screen within the overlap portions (partial color image) via the border and projection units. The input device enables an operator to provide distortion indications to the pattern generator, which cause the patterns to become aligned in some desired way. The distortion determiner determines an extent of distortion indicated by the input device and provides such information to the pattern generator to generate distorted patterns. The transformation generator generates transformations (conversion or correction) to be utilized by the transformer in accordance with the extent of distortion as produced by the determiner, once the operator indicates that the patterns are aligned in a final desired way. Kreitman discloses in (col. 6, lines 135-39) they can be dotted or dashed lines and/or the lines 80 of each section of the image having different colors. Thus, when two lines overlap, the viewer will see a color change to the color, which is the combination of the two colors.

3. Claim 5.

Kreitman illustrated in Fig. 3A a frame of plurality of projectors (partial color image). Also Kreitman illustrates in Fig. 6A, a generic receiver (#52), which receives the transmitted signal and converts it to an image frame. Kreitman discloses in (col. 2, lines 7-10) that, first measures the misalignments (where the conversion or correction input color required), in a calibration operation (where adding or mixing the intensity of the misalignment in order to determine the

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transformation corresponding to each projection unit), and then utilizes the misalignment measurements to determine the transformations for each section of the image. Kreitman discloses in (col.2, lines 18-31) that the pattern generator (image data conversion) generates patterns on the projection screen within the overlap portions (partial color image with different level of luminance) via the border and projection units. The input device enables an operator to provide distortion indications to the pattern generator, which cause the patterns to become aligned in some desired way. The distortion determiner determines an extent of distortion indicated by the input device and provides such information to the pattern generator to generate distorted patterns. The transformation generator generates transformations (conversion or correction) to be utilized by the transformer in accordance with the extent of distortion (nonuniformities) as produced by the determiner, once the operator indicates that the patterns are aligned in a final desired way .

4. Claim 6.

Kreitman discloses in (col.2, lines 18-31) that the pattern generator (image data conversion) generates patterns on the projection screen within the overlap portions (partial color image) via the border and projection units. The input device enables an operator to provide distortion indications to the pattern generator, which cause the patterns to become aligned in some desired way. The distortion determiner determines an extent of distortion indicated by the input device and provides such information to the pattern generator to generate distorted patterns. The transformation generator generates transformations (conversion or correction) to be utilized by the transformer in accordance with the extent of distortion (nonuniformities) as produced by the determiner, once the operator indicates that the patterns are aligned in a final desired way .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 8, 10, 12 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Kreitman, and further in view of Vogeley.

5. Claim 3.

Kreitman silenced about image sensing, however Vogeley teaches in (col. 7, lines 23-25) that suitable corrections in the computer software as relates to the position information from the image sensor. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Vogeley into Kreitman, because Kreitman discloses a multi projectors with one big screen, and Vogeley discloses the multi-primary-color for displaying the plurality of color image.

6. Claims 4, 8, 10, 12 and 14.

Kreitman silenced about four primary colors, however Vogeley teaches in (col. 12, lines 18-21) that these projectors could be in any order and indeed could project colors other than red, green and blue (comprises a multi-primary-color display) without deviating from the spirit of the present invention. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Vogeley into Kreitman, because Kreitman discloses a multi projectors with one big screen, and Vogeley discloses the multi-primary-color for displaying the plurality of color image.

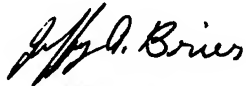
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Javid Amini


JEFFERY BRIEN
PRIMARY EXAMINER

Javid A Amini
Examiner
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